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February 6, 1956



Dear 

It is requested that a proposal and cost breakdown be submitted for the construction of two collapsible lens barrel systems in accordance with the enclosed specifications.

Very truly yours,



TSS/APD

Enclosure:
Specifications

Distribution:
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Collapsible Lens Barrel Specifications

It is requested that a proposal be submitted for:

1. A 40" focal length Astro lens shall be selected and a lens barrel constructed to form a long focus lens system identical to that completed under ND-84 - Task III with the following modifications:

- a. The front tripod support will be extended farther forward on the lens barrel permitting a steadier mount.
- b. The tripod sockets shall be recessed for lining up the tripod lock screw and the tripod socket.
- c. The tripod sockets on the lens shall be separated by a larger distance to permit easier utilization of two tripods.
- d. The securing of the different sections of the barrel shall be facilitated by easier meshing of one set of threads with the other either through lead in flares or by adoption of a different system. One possible system would be to use a key and groove with a locking ring.
- e. The extension tubes shall be knurled to prevent slippage of the barrel sections while handling.
- f. Provision shall be made to prevent interlocking of the barrel elements through a suitable system of stops at the end of the travel.
- g. The focusing system shall have a fine focus adjustment. The focusing and locking arrangement on the present system is probably suitable for rough focusing. The unit could probably be modified to include a fine focus at the end of the extension barrel adjacent to the camera mounting.
- h. Markings should be made on the barrel to indicate direction of rotation of the various threaded parts to either lock or unlock the elements.
- i. The front lens cap should be a screw on type rather than the friction fit provided.
- j. The units shall be

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-2-

- j. The units shall be equipped with interchangeable adaptors to permit use of either the Leica camera with reflex housing or Exakta camera with the lens.
- k. The units shall be equipped with UV and K-2 filters with containers using commercially available filters if possible.
- l. Easy access to the rear element of the lens shall be provided to permit easy cleaning.
- m. If possible the iris shall be protected to insure that the iris will not be damaged if left closed down during collapsing of the lens barrel.

2. A second collapsing barrel shall be designed and fabricated similar to the unit described above for a 48" focal length f-11 Zeiss App-Tessar lens to be purchased by the contractor. The lens shall be tested to insure its quality is equal to the 40" focal length Astro lens used in Task III of RD-84.

Preliminary engineering sketches shall be approved prior to fabrication. Photographic test results shall be submitted at the conclusion of the contract. Final drawings shall be submitted at the conclusion of the contract.

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